Research project aims to create affordable biofuels by 2019

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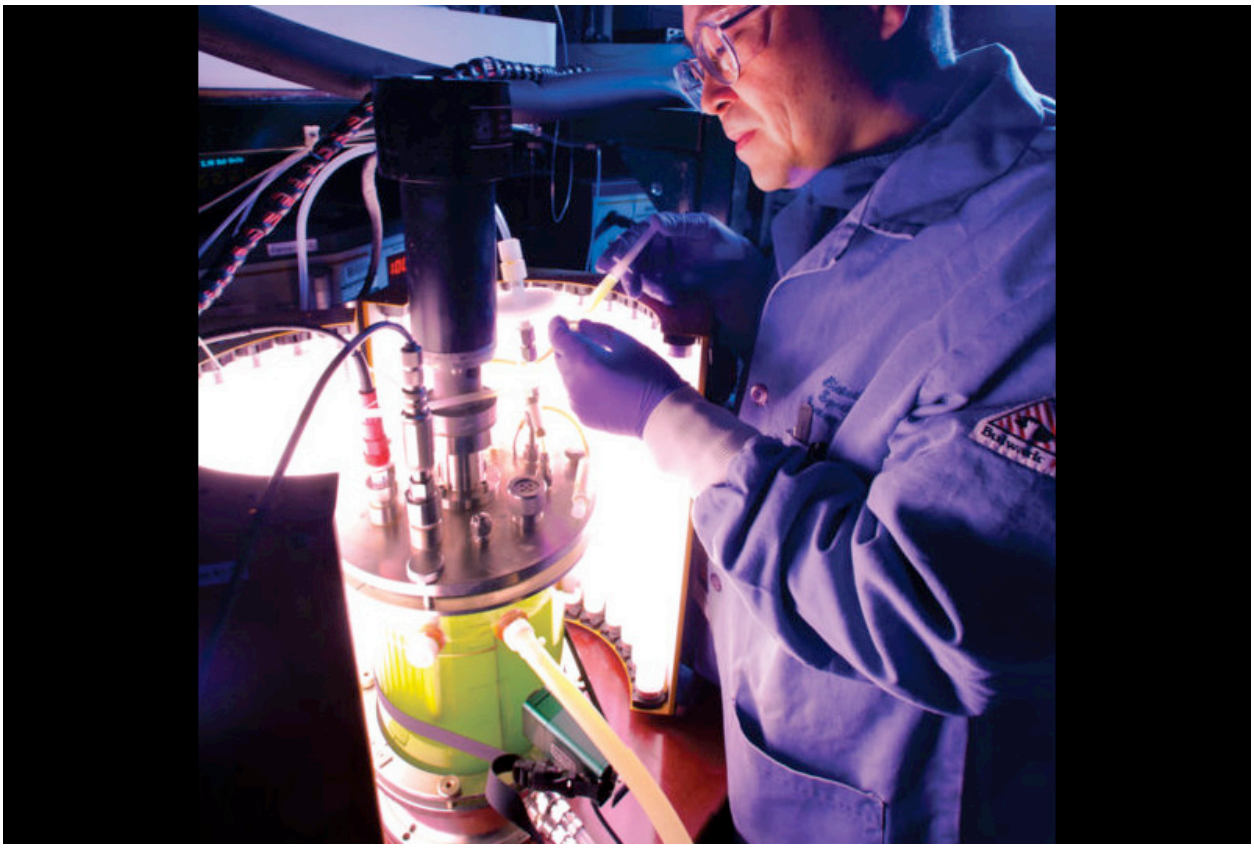

Los Alamos collaboration will enhance algal biofuels

LOS ALAMOS, N.M., Aug. 12, 2015— Los Alamos National Laboratory, in collaboration with the Colorado School of Mine and Reliance Industries, has received nearly $9 million in funding from the Department of Energy for Producing Algae and Co-Products for Energy (PACE), a project that enhances overall algal biofuels sustainability by maximizing carbon dioxide, nutrient, and water recovery and recycling, as well as bio-power co-generation.

Algal biomass can be converted to advanced biofuels that offer promising alternatives to petroleum-based diesel and jet fuels. Additionally, algae can be used to make a range of other valuable bioproducts, such as industrial chemicals, bio-based polymers, and proteins.

The goal of PACE is to increase biomass yield and carbon capture efficiency of Chlorella sorokiniana (algae) three-fold by using advanced genetic strategies applied to the best production strains, while co-producing high-value and high market demand co-products that reduce the costs of producing fuels across the entire production chain.

PACE also aims to enhance the resilience of biological systems to biotic challenges and reduce the environmental impact and economic costs of algal cultivation systems by 50 percent over open, paddle wheel pond systems at scale. Another goal of the project is to reduce parasitic energy losses associated with algal harvesting.

The funding for PACE comes from a DOE initiative to reduce the modeled price of algae-based biofuels to less than $5 per gasoline gallon equivalent (gge) by 2019.